ABBREVIATION LEGEND

&	AND
A	AIR (CLINICAL)
AAP	ALARM ANNUNCIATOR PANEL
AAV	AUTOMATIC AIR VENT
AB	ANCHOR BOLT
ABV	ABOVE
ACC DR	ACCESS DOOR
ACFL	ACCESS
ACOUS	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADA	AMERICAN DISABILITIES ACT
ADD	ADDENDUM
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
ADMIN	ADMINISTRATION
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISHED GRADE
AFMD	AIR FLOW MEASURING DEVICE
AHU	AIR HANDLING UNIT
AL	ALIGN
ALT	ALTERNATE
ALUM	ALUMINUM
AMP	AMPERE
AP	ACCESS PANEL
APC	ARCHITECTURAL PRECAST CONCRETE
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASY	ASYMMETRIC
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AWT	AVERAGE WATER TEMPERATURE
BAT	BATTERY
BC	BALANCING COCK OR BARE COPPER
BDD	BACKDRAFT DAMPER
BFC	BELOW FINISH CEILING
BFE	BOTTOM FOOTING ELEVATION
BFG	BELOW FINISHED GRADE
BG	BUMPER GUARD
BLDG	BUILDING
BLKG	BLOCKING
BLT	BORROWED LIGHT
BLW	BELOW
BM	BEAM
BO	BY OWNER
BOF	BY OWNER FUTURE
BOT	BOTTOM
BR	BRICK
BRG	BEARING
BRKR	BREAKER
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT UP ROOFING
C	CONDUIT
CAB	CABINET
CANTL	CANTILEVER
CAP	CAPACITY
CATV	CABLE TELEVISION
CCT	CUBICLE CURTAIN TRACK
CCTV	CLOSED CIRCUIT TELEVISION
CFH	CUBIC FEET / HOUR
CFM	CUBIC FEET / MINUTE
CH	CHANNEL
CHK V	CHECK VALVE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHWS&R	CHILLED WATER SUPPLY AND RETURN
CJ	CONTROL JOINT
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CL	CENTERLINE
CLG	CEILING
CLG MTD	CEILING MOUNTED
CLR	CLR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
COMM	COMMUNICATION
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE / CONTINUOUS
CONTR	CONTRACTOR
CONV	CONVECTOR
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET OR CONTROL POWER TRANSFORMER
CT	CERAMIC TILE
CTR	CENTER
CU	COPPER
CV	CONTROL VALVE
CW	COLD WATER
D	DEPTH OR DEEP
DB	DRY BULB
dB	DECIBEL
DCW	DOMESTIC COLD WATER
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAILS
DF	DRINKING FOUNTAIN
DHW	DOMESTIC HOT WATER
DIA	DIAMETER
DIAG	DIAGONAL OR DIAGRAM
DIFF	DIFFUSER
DIM	DIMENSION
DISC	DISCONNECT
DISCH	DISCHARGE
DISP	DISPENSER
DIST	DISTRIBUTION
DIV	DIVISION
DL	DOWN LIGHT
DN	DOWN
DP	DISTRIBUTION PANEL
DPR	DAMPER
DR	DRAIN
DS	DOWNSPOUT
DWG	DRAWING
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EIFS	EXTERIOR INSULATION AND FINISHING SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL

ELEC CAB	ELECTRICAL CABINET
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENTR	ENTRANCE
EO	ELECTRICAL OUTLET
EQ	EQUAL
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EX	EXAUST AIR
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
XP	EXPLOSION PROOF
F/S	FIRE / SMOKE DAMPER
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FAT	FINAL AIR TEMPERATURE
FB	FIRE BLANKET
FC	FLEXIBLE CONNECTION OR FOOTCANDLE
FD	FLOOR DRAIN OR FIRE DAMPER
FDN	FOUNDATION
FDV	FIRE DEPARTMENT VALVE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HOSE
FHC	FIRE HOSE CABINET
FHP	FULL HEIGHT PARTITION
FHV	FIRE HOSE VALVE
FIN	FINISH
FIXT	FIXTURE
FL	FLOW LINE
FLA	FULL LOAD AMPERES
FLASH	FLASHING
FLEX	FLEXIBLE
FLG	FLANGE
FLG C	FLANGE CONNECTION
FLR	FLOOR
FLUOR	FLUORESCENT
FP	FIRE PROOFING
FRMG	FRAMING
FS	FLOOR SINK
FSTOP	FIRESTOPPING
FT	FOOT / FEET
FT HD	FEET OF HEAD
FTC	FOOTCANDLES
FTG	FOOTING
FUR	FURRING
G	GAS OR ELECTRICAL GROUND
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GENL	GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTOR
GL	GLASS
GLV	GLOBE VALVE
GND	GROUND
GPM	GALLONS PER MINUTE
GR	GRADE
GRAV	GRAVITY
GRD BM	GRADE BEAM
GV	GATE VALVE
GWB	GYPSUM BOARD
H	HIGH
HB	HOSE BIB
HC	HEATING CONTRACTOR
HDCP	HANDICAP
HDR	HEADER
HDW	HARDWARE
HID	HIGH INTENSITY DISCHARGE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HORSE POWER
HPD	HIGH PRESSURE DRIP
HPF	HIGH POWER FACTOR
HR	HANDRAIL
HSKP	HOUSEKEEPING
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HV	HIGH VELOCITY
HVAC	HEATING, VENTILATING, AIR CONDITIONING
HW	HOT WATER
HWD	HARD WOOD
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HWS&R	HOT WATER SUPPLY AND RETURN
HZ	HERTZ
ID	INSIDE DIAMETER
IER	INVERTED ECCENTRIC REDUCER
IG	ISOLATED GROUND
IME	INSULATED METAL ENCLOSURE
IN	INCH
INCAND	INCANDESCENT
INCL	INCLUDED
INSUL	INSULATION
INT	INTERIOR
INTERL	INTERLOCK
INV	INVERT
ISO	ISOLATION
IVS	ISOLATED VALVE STATION
J-BOX	JUNCTION BOX
JST	JOIST
JT	JOINT
KO	KNOCK OUT
kVA	KILOVOLT AMPERE
kVAR	KILOVAR (REACTANCE)
kW	KILOWATT
kWH	KILOWATT HOUR METER
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LB	POUND
LDB	LEAVING DRY BULB
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET
LIN	LINEAR
LOC	LOCATION OR LOCATE
LPT	LOW POINT
LSDC	LINEAR SUPPLY DIFFUSER CEILING
LT	LIGHT

LTG	LIGHTING
LV	LOW VOLTAGE
LVR	LOUVER
LWB	LEAVING WET BULB
LWC	LINEAR WOOD CEILING
LWT	LEAVING WATER TEMPERATURE
MAN	MANUAL
MAT	MIXED AIR TEMPERATURE
MATL	MATERIAL
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	ONE THOUSAND BTU / HOUR
MC	MECHANICAL CONTRACTOR
MC	METAL CLAD CABLE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MEMB	MEMBRANE
MET	METAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MO	MASONRY OPENING
MOD	MOTOR OPERATED DAMPER
MONO	MONOLITHIC
MTD	MOUNTED
MTG HT	MOUNTING HEIGHT
MTL	METAL
MTLH	METAL HALIDE
MTR	MOTOR
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NUMBER OR NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPER	OPERATED
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
PB	PULL BOX
PC	PLUMBING CONTRACTOR
PD	PUMP DISCHARGE
PG	PRESSURE GAUGE WITH COCK
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PNL	PANEL
PR	PAIR
PRD	PRESSURE DIFFERENTIAL VALVE
PRELIM	PRELIMINARY
PRT	PRESSURE TAP
PRV	PRESSURE REDUCING VALVE
PT	PAINT OR POTENTIAL TRANSFORMER
RO	ROUGH OPENING
QT	QUARRY TILE
R	RADIUS
RA	RETURN AIR / RELIEF AIR
RB	RUBBER BASE
RC	REMOVE COMPLETELY
RD	ROOF DRAIN
RE	RELOCATE EXISTING
REC	RECESSED
RECPT	RECEPTACLE
REF	REFERENCE
REFL	REFLECTOR
REG	REGISTER
REINF	REINFORCING
REM	REMOVE
REQD	REQUIRED
RET	RETURN
REV	REVISE
REX	REMOVE EXISTING
RF	RESILIENT FLOOR
RFI	REQUEST FOR INFORMATION
RGS	RIGID GALVANIZED STEEL CONDUIT
RH	ROOF HATCH
RM	ROOM
RN	REMOVE AND REPLACE WITH NEW
RR	REMOVE AND REPLACE
RS	RAPID START
RV	RELIEF VALVE
RWC	RAIN WATER CONDUCTOR
SA	SUPPLY AIR
SAN	SANITARY SEWER ABOVE GROUND
SAN-BXR	SANITARY SEWER - BURIED EXISTING TO REMAIN
SAN-XR	SANITARY SEWER ABOVE GROUND - EXISTING TO REMAIN
SCHED	SCHEDULE
SD	SMOKE DAMPER OR SMOKE DETECTOR
SDISP	SOAP DISPENSER
SF	SQUARE FOOT
SHT	SHEET
SHT MTL	SHEET METAL
SHTG	SHEATHING
SIM	SIMILAR
SM	SURFACE MOUNTED
SNC	SANITARY NAPKIN CABINET
SND	SANITARY NAPKIN DISPOSER
SP	STANDPIPE OR STATIC PRESSURE
SPC	SPECIMEN PASS-THRU CABINET
SPEC	SPECIFICATIONS
SPS	STATIC PRESSURE SENSOR
SR	SERVICE RECEPTOR
SS	SOIL STACK
ST PR	STATIC PRESSURE
ST STL	STAINLESS STEEL
STD	STANDARD
STER	STERILIZER
STL	STEEL
STOR	STORAGE
STR	STRAINER
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SW	SWITCH

SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL TOP
T	TOP
TA	THROWAWAY
TAN	TANGENT
TC	TELECOMMUNICATIONS CONTRACTOR
TCV	TEMPERATURE CONTROL VALVE
TDV	TRIPLE DUTY VALVE
TEL	TELEPHONE
TEMP	TEMPERATURE
TER	TERRAZZO
TG	TONGUE & GROOVE
TH	THERMOMETER
THRES	THRESHOLD
TR	TEMPERATURE RISE
TRANS	TRANSITION
TRANSR	TRANSFORMER
TSTAT	THERMOSTAT
TV	TURNING VANES OR TELEVISION
TYP	TYPICAL
UC	UNDER CABINET OR UNDER CUT
UFD	UNDER FLOOR DUCT
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORIES
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTIL	UTILITY
V	VOLT
VAL	VALVE
VD	VOLUME DAMPER
VENT	VENTILATION
VERT	VERTICAL
VFS	VENTURI FLOW STATION
VIF	VERIFY IN FIELD
VL	VENT LINE
VR	VAPOR RETARDER
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WATT
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WALL COVERING
WCL	WATER CLOSET
WD	WOOD
WF	WIDE FLANGE
WFMD	WATER FLOW MEASURING DEVICE
WG	WALL GUARD OR WATER GAUGE
WHCH	WHEEL CHAIR
WIN	WINDOW
WMS	WIRE MESH SCREEN
WP	WEATHERPROOF
WPS	WALL PROTECTION SYSTEM
WSCT	WAINSCOT
WT	WINDOW TREATMENT
WTD	WATER TEMPERATURE DROP
WWF	WELDED WIRE FABRIC
X	DEMO
XN	TO BE RELOCATED / NEW LOCATION
XR	EXISTING TO REMAIN
ZVB	ZONE VALVE BOX
ZVC	ZONE VALVE CABINET

FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX

SYSTEM INPUTS	SYSTEM OUTPUTS: ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL INDICATOR	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE ZONE OR DEVICE ADDRESS ALARM INDICATOR	ACTUATE GENERAL EVACUATION SIGNAL	DISPLAY CHANGE OF STATUS	TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION	DE-POWER POWER ASSISTED FIRE DOORS	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION	RELEASE MAGNETCALLY HELD DOORS	RECALL ELEVATOR TO ALTERNATE RECALL FLOOR	ACTUATE WARNING TO ELEVATOR CABS	DELAYED REMOVAL OF POWER FROM ELEVATOR	CLOSE ALL SMOKE DAMPERS	UNLOCK EXITS AND CONTROL DOORS	SHUT DOWN RESPECTIVE AIR HANDLING UNIT	ACTUATE FLOOR PRESSURIZATION	ACTUATE STAIRWELL PRESSURIZATION	ACTUATE SMOKE EXHAUST
FIRE ALARM SYSTEM AC POWER FAILURE			X	X								X											
FIRE ALARM SYSTEM LOW BATTERY					X	X							X										
OPEN CIRCUIT					X	X							X										
GROUND FAULT					X	X							X										
NOTIFICATION APPLIANCE CIRCUIT SHORT					X	X							X										
BUILDING MANUAL PULL STATIONS	X	X					X	X	X	X	X		X	X				X	X				
CORRIDOR SMOKE DETECTORS	X	X					X	X	X	X			X	X				X	X		X	X	X
AREA SMOKE DETECTORS	X	X					X	X	X	X	X		X	X				X	X		X	X	X
HVAC AIR DUCT SMOKE DETECTORS			X	X			X					X								X			
AREA HEAT DETECTORS	X	X					X	X	X	X	X		X	X				X	X		X	X	X
HOOD OR ROOM FIRE SUPPRESSION SYSTEM	X						X					X	X	X				X	X				
SPRINKLER TAMPER SWITCH	X		X	X			X	X	X	X													
SPRINKLER WATER FLOW IN BUILDING	X	X					X	X	X	X			X	X					X				
SPRINKLER WATER FLOW IN ELEV EQUIPMENT ROOM OR SHAFT	X						X	X	X	X			X	X					X				
ELEV SHAFT AND ELEV EQUIPMENT ROOM SMOKE DETECTORS	X						X	X	X	X			X	X					X				
ELEV SHAFT AND ELEV EQUIPMENT ROOM HEAT DETECTORS	X						X	X	X	X			X	X		X	X		X				
ELEV LOBBY SMOKE DETECTORS UPPER FLOORS	X						X	X	X	X	X		X	X		X			X		X	X	X
ELEV LOBBY SMOKE DETECTORS RECALL FLOORS	X						X	X		X	X		X	X		X	X		X		X	X	X
ELEV CONTROLLER POWER SHUNT TRIP STATUS			X	X			X												X				
FIRE PUMP POWER FAILURE/PHASE REVERSAL			X	X			X	X	X	X			X	X	X	X							
FIRE PUMP RUNNING	X	X					X					X						X	X				
FIRE PUMP SYSTEM NOT IN AUTOMATIC			X	X			X					X											
LEGALLY REQUIRED GENERATOR SYSTEM LOW FUEL			X	X			X					X											
LEGALLY REQUIRED GENERATOR SYSTEM NOT IN AUTOMATIC			X	X			X					X											
AREA OF REFUGE TWO-WAY COMMUNICATIONS STATUS			X	X			X					X											

NOTE: MATRIX SHOWN FOR FULL BUILDING FIRE ALARM SYSTEM. EXISTING DEVICES ADDED INTO SYSTEM ARE TO FOLLOW THE SAME SEQUENCE OF OPERATION AS THE EXISTING DEVICES.

FIRE ALARM SYMBOLS LEGEND

THIS IS A STANDARD SYMBOL LIST. ALL SYMBOLS MAY NOT APPEAR ON THIS PROJECT.

NOTIFICATION SYMBOLS

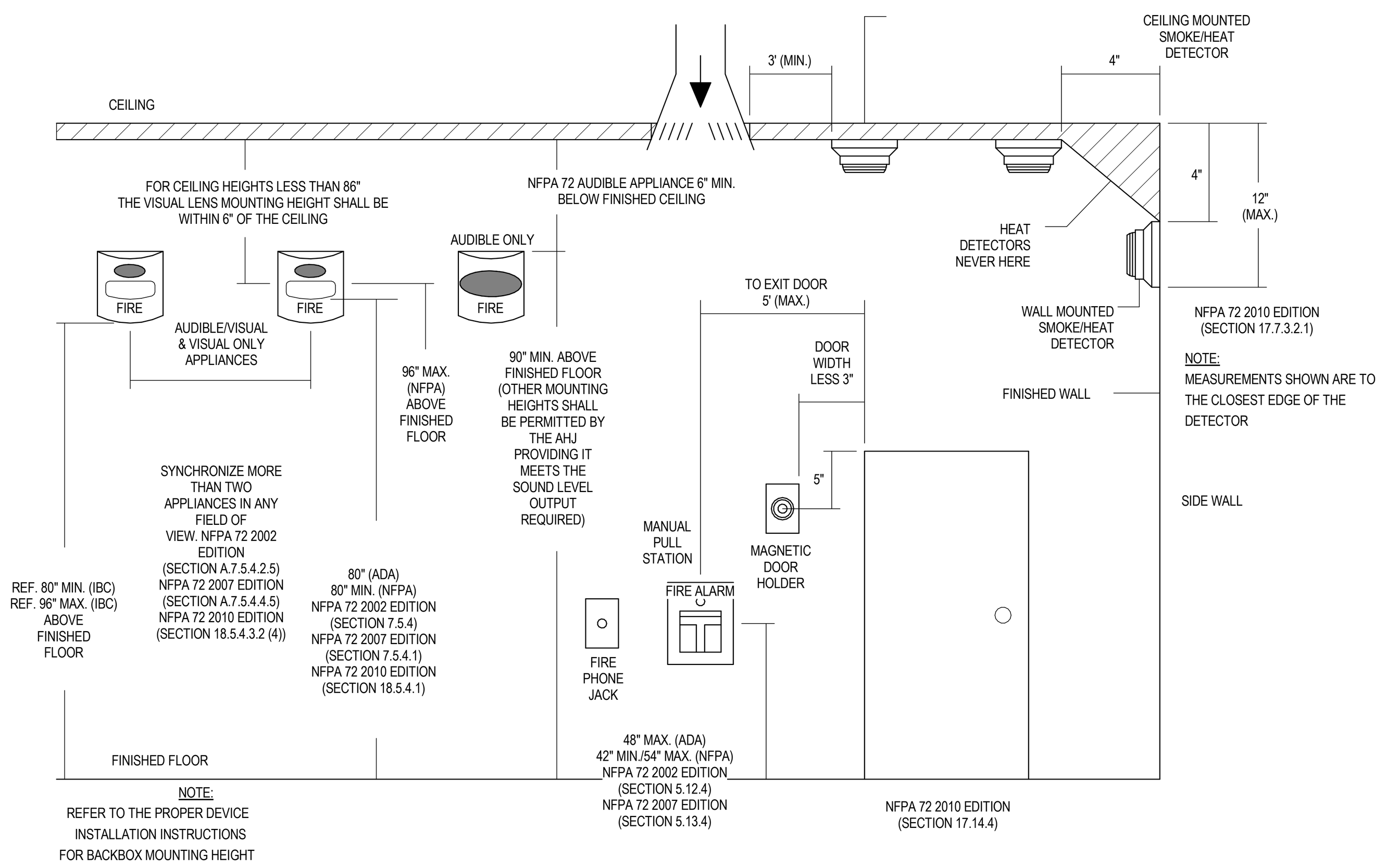
- XX-CD — STROBE UNIT SYNCHRONIZED - CEILING MOUNT (XX-CD = CANDELA RATING): WP = WEATHERPROOF, WG = WIREGUARD
- XX-CD — STROBE UNIT SYNCHRONIZED - WALL MOUNT (XX-CD = CANDELA RATING): WP = WEATHERPROOF, WG = WIREGUARD
- XX-CD — COMBO SYNCHRONIZED HORN/STROBE UNIT - WALL MOUNTED (XX-CD = CANDELA RATING): WP = WEATHERPROOF, WG = WIREGUARD
- XX-CD — COMBO SYNCHRONIZED HORN/STROBE UNIT - CEILING MOUTNED (XX-CD = CANDELA RATING): WP = WEATHERPROOF, WG = WIREGUARD
- FS — FIRE SPEAKER UNIT - CEILING MOUNTED
- FS — FIRE SPEAKER UNIT - WALL MOUNTED
- FS XX-CD — FIRE SPEAKER/STROBE UNIT - CEILING MOUNTED (XX-CD = CANDELA RATING): WP = WEATHERPROOF, WG = WIREGUARD
- FS XX-CD — FIRE SPEAKER/STROBE UNIT - WALL MOUNTED (XX-CD = CANDELA RATING): WP = WEATHERPROOF, WG = WIREGUARD

INITIATING SYMBOLS

- HD — HEAT DETECTOR
- SD — SMOKE DETECTOR
- DD — DUCT DETECTOR
- F — MANUAL PULL STATION
- TS — CONNECTION TO SPRINKLER TAMPER AND\OR LOW AIR SWITCH
- FS — CONNECTION TO SPRINKLER WATER, FLOW SWITCH
- M — ADDRESSABLE MONITOR MODULE
- C — ADDRESSABLE CONTROL MODULE
- R — RELAY
- DH — MAGNETIC DOOR HOLD OPEN DEVICE - FLOOR MOUNTED
- DH — MAGNETIC DOOR HOLD OPEN DEVICE - WALL MOUNTED

FIRE ALARM HEAD END SYMBOLS

- FACP — ADDRESSABLE FIRE ALARM CONTROL PANEL
- FAAP — REMOTE LCD ANNUNCIATOR PANEL
- FAC — FIRE ALARM COMMUNICATOR (DACT)
- MFACP — MASTER FIRE ALARM CONTROL PANEL
- FFCS — FIRE FIGHTERS COMMAND STATION
- FATC — FIRE ALARM TERMINAL CABINET
- FCPS — FIELD CHARGING POWER SUPPLY
- EOL — END OF LINE SUPERVISORY DEVICE



FIRE ALARM DEMOLITION ABBREVIATIONS

ETR EXISTING TO REMAIN - DEVICE SHALL REMAIN IN WORKING ORDER.

RN REMOVE AND REPLACE WITH NEW - EXISTING BACKBOX AND WIRING SHALL REMAIN, RECONNECT NEW DEVICE TO EXISTING CIRCUIT.

RR REMOVE AND RELOCATE - DISCONNECT DEVICE, MODIFY AND EXTEND FEED TO NEW LOCATION.

RC REMOVE COMPLETLY - REMOVE DEVICE, CONDUIT, AND WIRING BACK TO SOURCE.

NOTE:
ALL SYSTEM PARTS MUST BE HONEYWELL NOTIFIER ONLY (SOLE SOURCE) -
NO OTHER MANUFACTURER ALLOWED.

GENERAL FIRE ALARM SYSTEM NOTES:

1. THE FOLLOWING GENERAL NOTES AS LISTED BELOW SHALL APPLY TO ALL FIRE ALARM SYSTEM SCOPES OF WORK AS INDICATED ON THE EF SERIES DRAWINGS.
2. ALL EQUIPMENT SYMBOLS ARE SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE TO THEIR INTENDED LOCATION. CONTRACTOR SHALL COORDINATE IN THE FIELD THE PROPER INSTALLATION OF ALL EQUIPMENT, DEVICES, CONTROLS AND CABLING. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
3. DRAWINGS FOR THIS WORK ARE DIAGRAMMATIC AND INTENDED TO CONVEY THE EXTENT, GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS ACCESS PANELS, CONDUITS, CABINET SIZES, PENETRATION SLEEVES, PULL BOXES, BACKBOXES AND JUNCTION BOXES MAY NOT BE SHOWN. INCLUDE ALL ITEMS WHERE REQUIRED BY CODE, MANUFACTURER AND RELATED SPECIFICATION SECTIONS FOR THE PROPER INSTALLATION OF ALL WORK.
4. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 760 OF THE 2008 NATIONAL ELECTRIC CODE. ALL FIRE ALARM CABLE MUST BE MARKED TYPE FPL (NON PLENUM) OR FPLP (PLENUM) AND PROVIDED IN ACCORDANCE WITH THE CABLING REQUIREMENTS SPECIFIED BY THE CONTRACT DOCUMENTS.
5. FIRE ALARM DEVICE MOUNTING HEIGHTS SHALL COMPLY WITH ALL ANSI 117, NFPA 72 AND IBC REQUIREMENTS, AT THE MINIMUM. INSTALL ALL DEVICES AS FOLLOWS:

   MANUAL PULL STATION: 48" AFF TO CENTER

   AUDIBLE / VISUAL: 7'-0" AFF TO CENTER OF STROBE LENS OR 8" BELOW CEILING TO CENTER OF STROBE LENS.

   VISUAL: 7'-0" AFF TO CENTER OF STROBE LENS OR 8" BELOW CEILING TO CENTER OF STROBE LENS.

   EMERGENCY TELEPHONE JACKS: 48" AFF TO CENTER
6. COORDINATE WITH ALL TRADES ALL CONDITIONS RELATED TO THE INSTALLATION OF ALL DEVICES. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE TRADE ALL INSTALLATION REQUIREMENTS IMPACTING THE PLACEMENT OF ALL SYSTEM COMPONENTS TO THE SATISFACTION OF ALL CONCERNED TRADES.
7. PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NFPA 70 REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
8. COORDINATE EXACT LOCATION(S) OF ALL CEILING MOUNTED CABLE, CONDUITS, EQUIPMENT AND/OR DEVICES WITH ALL ARCHITECTURAL PLANS, REFLECTED CEILING PLANS AND AFFECTED TRADES PRIOR TO INSTALLATION.
9. ALL SMOKE AND HEAT DETECTORS SHALL BE MOUNTED TO FINISHED CEILING AND/OR DECKING, UNLESS NOTED OTHERWISE. DETECTORS SHALL NOT BE INSTALLED ON BOTTOM OF OPEN WEB JOISTS OR ON BEAMS EXCEEDING 12 INCHES DEPTH FROM FINISHED CEILING OR DECK. REFER TO NFPA 72 FOR ALL INITIATING DEVICE INSTALLATION REQUIREMENTS. PROVIDE DETECTORS IN SUFFICIENT QUANTITY TO COMPLY WITH ALL NFPA 72 REQUIREMENTS BASED ON CEILING CONDITIONS AND PROTECTED SPACE REQUIREMENTS
10. PROTECTIVE ANTI-DUST COVERS SHALL BE INSTALLED AND MAINTAINED ON ALL SYSTEM SMOKE DETECTORS UNTIL FINAL ACCEPTANCE BY THE AUTHORITIES HAVING JURISDICTION.
11. SMOKE DETECTORS SHALL NOT BE INSTALLED LESS THAN 3 FEET FROM ANY HVAC SUPPLY OR RETURN AIR REGISTER AND A MINIMUM OF 1 FOOT AWAY FROM ALL LIGHTING FIXTURES.
12. WHERE EQUIPMENT AND/OR JUNCTION BOXES ARE INSTALLED ABOVE FINISHED CEILINGS, THE CONTRACTOR SHALL PROVIDE ACCESS HATCHES LISTED FOR THE INTENDED APPLICATION. ACCESS HATCHES SHALL BE LOCATED SO THAT SERVICE ACCESS TO THE EQUIPMENT AND/OR JUNCTION BOXES IS UNIMPEDED.
13. THE FIRE ALARM SYSTEM CABLING SHALL BE INSTALLED IN DEDICATED CONDUITS. ALL CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 AND THE CONTRACT DOCUMENTS. ALL CONDUITS SHALL BE SIZED IN ACCORDANCE WITH NFPA 70 AND SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION.
14. ALL CONDUITS/RACEWAYS SHALL BE INSTALLED IN A MANNER THAT PREVENTS TAMPERING OR REMOVAL WHEN INSTALLED IN AREAS EXPOSED TO THE GENERAL POPULATION. PROVIDE TAMPER-RESISTANT INSTALLATION UTILIZING "TORX WITH PEG" SECURITY-FASTENING DEVICES FOR ALL CONDUITS/RACEWAYS, EQUIPMENT, DEVICES AND APPURTENANCES IN ALL AREAS ACCESSIBLE TO THE GENERAL POPULATION AND/OR AREAS SUBJECTED TO TAMPERING OR VANDALISM. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION.
15. PROVIDE APPROVED EARTH GROUND AT FIRE ALARM CONTROL PANEL. CHASSIS. A CONDUIT GROUNDING TO BUILDING STEEL SHALL NOT BE CONSIDERED AN ACCEPTABLE METHODOLOGY FOR GROUNDING OF FIRE ALARM CONTROL PANEL..
16. ALL SYSTEM WIRING AND EQUIPMENT INSTALLATIONS SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND BY ALL IEEE, EIA,NEC AND MANUFACTURER'SREQUIREMENTS. WIRING SHALL COMPLY WITH ALL STATE AND LOCAL ELECTRICAL CODES. ALL WIRING SHALL TEST FREE FROM ALL GROUNDS, SHORTS AND EMI.
17. NO A.C. CARRYING CONDUCTORS ARE PERMITTED TO SHARE RACEWAYS WITH ANY FIRE ALARM INITIATING AND/OR NOTIFICATION CIRCUITS
18. ALL AC ELECTRICAL CIRCUITS FEEDING THE FIRE ALARM CONTROL EQUIPMENT SHALL BE EQUIPPED WITH DEDICATED CIRCUIT BREAKER LOCKOUT DEVICE IN ACCORDANCE WITH NFPA 72.
19. THE CONTRACTOR SHALL METER ALL WIRES AND CIRCUITS TO ENSURE THEY ARE FREE OF ANY GROUNDS AND SHORTS PRIOR TO COMMISSIONING OF THE SYSTEM.
20. ALL AUXILIARY ALARM RELAYS MUST BE INSTALLED WITHIN 3 FEET OF THE EQUIPMENT TO BE CONTROLLED IN ACCORDANCE WITH ALL NFPA 72 REQUIREMENTS.
21. ALL FIRE ALARM DEVICES AND EQUIPMENT SHALL BE LABELED UNIQUE IDENTIFICATION NUMBER. ALL NUMBERS SHALL CORRESPOND WITH NUMBERING SEQUENCE AS SUBMITTED ON THE PROJECT SHOP DRAWINGS. LABELS TO BE SIMILAR TO "BROTHER P-TOUCH" BLACK LETTERING ON WHITE BACKGROUND, SELF-ADHESIVE TAPE. ALL DEVICE LABELS SHALL BE INSTALLED PRIOR TO SYSTEM CHECKOUT.
22. ALL PENETRATIONS OF WALLS AND FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRE-STOPS SHALL BE PERFORMED BY AN APPLICATOR/INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.
23. REFER TO ALL RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION.
24. ALL EQUIPMENT ENCLOSURES LOCATED OUTSIDE OR IN ALL AREAS WITH HIGH MOISTURE OR A RELATIVE HUMIDITY OF 75% OR GREATER SHALL BE NEMA 4X ENCLOSURES AND RATED FOR THAT APPLICATION.
25. ALL EQUIPMENT EXPOSED TO THE ENVIRONMENT OR INSTALLED IN PROXIMITY TO AREAS WITH HIGH MOISTURE, OR A RELATIVE HUMIDITY OF 75% OR GREATER SHALL PROVIDED WITH ENCLOSURES AND OR BACKBOXES RATED FOR THE ENVIRONMENTAL CONDITIONS.
26. THE STROBE INTENSITY OF ALL VISUAL NOTIFICATION APPLIANCES SHALL BE IN ACCORDANCE WITH NFPA 72 AND UL 1971. STROBE CANDELA RATINGS SHALL BE PROVIDED IN ACCORDANCE WITH DEVICE LOCATIONS AND SHALL CONFORM TO ALL ICC/ANSI 117 AND NFPA 72 INSTALLATION REQUIREMENTS. CONTRACTOR SHALL PROVIDE THE REQUIRED CANDELA POWER AND LOCATE ALL VISUAL NOTIFICATION APPLIANCES AS REQUIRED TO MEET THE REQUIREMENTS OF ALL REFERENCED CODES AND STANDARDS.

FULLY SPRINKLERED
CONSTRUCTION DOCUMENTS

Revisions:	Date
REV. 1	7/01/16

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Drawing Title: FIRE ALARM SYMBOLS, ABBREVIATIONS AND NOTES

Approved: Project Director

Project Title: EXPAND EMERGENCY POWER GENERATION for the ERIE VAMC

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Office of Construction and Facilities Management

Department of Veterans Affairs